

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/051366 A2

(51) International Patent Classification⁷: **A61K 31/00**

(21) International Application Number:
PCT/EP2004/013459

(22) International Filing Date:
26 November 2004 (26.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0327734.0 28 November 2003 (28.11.2003) GB
0417805.9 10 August 2004 (10.08.2004) GB

(71) Applicant (for all designated States except AT, US): NO-
VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel
(CH).

(71) Applicant (for AT only): NOVARTIS PHARMA GMBH
[AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BOLD, Guido**
[CH/CH]; Bleumatthöhe 16, CH-5073 Gipf-Oberfrick
(CH). **CARAVATTI, Giorgio** [CH/CH]; Fuchshagweg
28, CH-4103 Bottmingen (CH). **FLOERSHEIMER,**
Andreas [DE/CH]; Lehmenweg 38, CH-4143 Dornach
(CH). **GUAGNANO, Vito** [IT/CH]; Thannerstrasse 66,
CH-4054 Basel (CH). **IMBACH, Patricia** [CH/CH];
Mattenweg 7, CH-4303 Kaiseraugst (CH). **MASUYA,**
Keiichi [JP/JP]; 1-2-1 Tsukuho, Tsukuba-shi, Ibaraki Pref.
300-3257 (JP). **ROESEL, Johannes** [DE/CH]; Unterm

Schellenberg 211, CH-4125 Riehen (CH). **VAUPEL,**
Andrea [DE/CH]; Rütting 23, CH-4125 Riehen (CH).
GARCIA-ECHEVERRIA, Carlos [ES/CH]; Engelgasse
126, CH-4052 Basel (CH).

(74) Agent: **GRUBB, Philip**; Novartis AG, Corporate Intellect-
tual Property, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: DIARYL UREA DERIVATIVES IN THE TREATMENT OF PROTEIN KINASE DEPENDENT DISEASES

(57) Abstract: The invention relates to the use of diaryl urea derivatives for the manufacture of pharmaceutical compositions for the treatment of RET dependent disorders, especially RET dependent tumor diseases. The invention further relates to novel N-[4-(pyrimidin-4-yloxy)-phenyl]-N'-phenyl-urea derivatives and their use in the treatment of the animal or human body, especially in the treatment of a protein kinase dependent disease, to pharmaceutical compositions comprising such novel N-[4-(pyrimidin-4-yloxy)-phenyl]-N'-phenyl-urea derivatives and to the use of such novel N-[4-(pyrimidin-4-yloxy)-phenyl]-N'-phenyl-urea derivatives for the preparation of pharmaceutical compositions for use in the treatment of protein kinase dependent diseases, especially of proliferative diseases, such as tumour diseases.



WO 2005/051366 A2